Marietta WATER

Annual Water Quality Report

Water testing performed in 2004

PWS ID#: GA0670005

Continuing Our Commitment

Marietta Water proudly presents our annual water quality report. This report provides you with a summary of our drinking water quality and covers all testing completed from January through December 2004. After reading it, we hope you will better understand where your water comes from and how the water is protected, treated, and tested before you drink it. You will find that Marietta Water delivers water to you that exceeds federal drinking water standards established by the U.S. EPA. Water is important to all of us—its availability, its quality and its use. Marietta Water is committed to providing our consumers with high quality water and excellent customer service. We are pleased to announce that our last two annual reports have received certificates of achievement in the consumer confidence report contest held annually by the Georgia Water and Pollution Control Association (GW&PCA).

For more information about this report, or for any questions relating to your drinking water, please call Tim Marshall, Environmental Compliance Coordinator, at (770) 794-5229.

Community Participation

Marietta Water operates under the supervision of the Board of Lights and Water. This board consists of seven representatives who establish policy for Marietta Water. You can make an appointment to voice comments or concerns to the board on water related issues by calling the board manager at (770) 794-5109. The board meets the Monday before the second Wednesday of each month. Marietta Water maintains regular operating hours of Monday through Friday, 7:00 a.m. to 4:00 p.m. To reach the service and maintenance department 24 hours a day, please call (770) 794-5230.

Where Does Our Water Come From?

Marietta Water purchases water from the Cobb County-Marietta Water Authority (CCMWA), a public utility founded in 1951. The CCMWA treatment facilities are supplied from two separate surface water sources. The James E. Quarles Treatment Facility, built in 1953, withdraws water from the Chattahoochee River. The Quarles plant currently treats about 64 million gallons of water a day. This water is distributed and utilized on the eastern side of Cobb County and Marietta. The Hugh A. Wyckoff Treatment Facility, built in 1963, withdraws water from Lake Allatoona. Lake Allatoona is a Corps of Engineers impoundment in north Cobb, south Cherokee and south Bartow counties. This manmade, multi-use lake is fed by the Etowah River, which is part of the Coosa River Basin. The Wyckoff plant currently treats about 72 million gallons of water a day. This water is distributed and utilized on the north and west side of Cobb County and Marietta. These treatment facilities and a new laboratory are under construction to meet the ever-increasing needs of our community.

Source Water Assessment

During 2002, the CCMWA and the Atlanta Regional Commission completed a source water assessment itemizing potential sources of water pollution to our surface drinking water supplies. This information can help you understand the potential for contamination of your drinking water supplies and can be used to prioritize the need for protecting drinking water sources.

A source water assessment is a study and report that provides the following information: identifies the area of land that contributes the raw water used for drinking water; identifies potential sources of contamination to drinking water supplies; and provides an understanding of the drinking water supply's susceptibility to contamination.

Individual source pollution involves actual facilities, which have contaminants on site, which can pose a potential health risk if humans consume those contaminants. Nonpoint source pollution is caused by development and by everyday activities that take place in residential, commercial and rural areas; nonpoint source pollution is carried by rainfall to streams and lakes. After evaluating these sources of pollution, the report found the Chattahoochee watershed susceptibility ranking to be high and the Lake Allatoona watershed susceptibility ranking to be medium.

For more information on this project, visit the source water assessment Web site at www.atlantaregional.com/swap/, or you can request information by mail from Environmental Planning Division, Atlanta Regional Commission, Attn: Matthew Harper, 40 Courtland Street, NE, Atlanta, GA 30303.

You can do your part to conserve water by following the current statewide predrought, outdoor watering restrictions:

- Odd-numbered addresses may water only on Tuesdays, Thursdays and Sundays (no hourly limits).
- Even-numbered or unnumbered addresses may water only on Mondays, Wednesdays and Saturdays (no hourly limits).

Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

Sampling Results

During the past year we have taken thousands of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. Although all of the substances listed are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW–HIGH	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2004	(4)	(4)	2.05	0.01-2.05	No	Water additive used to control microbes
Chlorite (ppm)	2004	1.0	0.8	0.38	ND-0.38	No	By-product of drinking water disinfection
Fluoride (ppm)	2004	4	4	0.96	0.03-0.96	No	Erosion of natural deposits; Water additive which promotes strong teeth
Haloacetic Acids [HAAs] (ppb)	2004	60	0	25.4	3.9-29.0	No	By-products of drinking water disinfection
Nitrate (ppm)	2004	10	10	0.68	0.36-0.68	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Coliforms (% positive samples)	2004	5% positive monthly samples	0% positive monthly samples	2.6	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2004	TT	NA	1.8	1.0-1.8	No	Decay of organic matter in the water withdrawn from sources such as lakes and streams
TTHMs [Total Trihalomethanes] (ppb)	2004	80	0	46.0	17.4-86.5	No	By-products of drinking water disinfection
Turbidity[1] (NTU)	2004	TT=1 NTU TT=% of samples <0.3 NTU	0	0.19	ND-0.19	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 50 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90th%TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2004	1.3	0	0.03	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2004	15	0	5.3	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

[1] Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, a minimum of 100% of all samples taken to measure turbidity met water quality standards.

Table Definitions

AL (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

NA: Not applicable

ND: Not detected

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Cryptosporidium in Drinking Water

The CCMWA participated in a major drinking-water-quality testing program called the Supplemental Information Collection Rule (SICR). Two of the contaminants tested for under this rule are the parasites *Cryptosporidium* and *Giardia*, which have caused outbreaks of intestinal disease in the United States and abroad. These parasites are common in surface water and are very difficult to kill. Even a well-run water system may contain some live oocysts (in the case of *Cryptosporidium*) or cysts (in the case of *Giardia*). The U.S. EPA is working to resolve several scientific issues that will allow it to set *Cryptosporidium* and *Giardia* safety standards. Our 1999 testing, performed at the raw (untreated) water intake on the Chattahoochee River, located immediately north of the Johnson Ferry Road crossing, revealed the presence of *Cryptosporidium* and *Giardia* in several months' samples. These organisms were detected in the water prior to treatment. During 1999, the water at Lake Allatoona was tested. No oocysts or cysts were detected. In order to comply with an upcoming federal regulation, the CCMWA has been monitoring for *Cryptosporidium* and *Giardia* in the raw water from both its water sources, the Chattahoochee River and Lake Allatoona. This monitoring was performed monthly during 2004. No *Cryptosporidium* oocysts were detected at either source. *Giardia* cysts were detected in two of the twelve samplings. Again, these organisms were detected in the water prior to treatment and only at the Chattahoochee River intake. Our treatment technique is designed and optimized to remove these contaminants. Therefore, no precaution about our drinking water is currently needed for the general public. See advice about special populations and a source for further information in the Special Health Information section.

Working Hard For You

Marietta Water has been a part of this community for almost 100 years. We provide water and sanitary sewer service for more than 17,000 customers (60,000 people) within our service boundary. The department employs 40 employees that work in the following divisions: Admin, Water Distribution, Meter Services, Wastewater Collection, Environmental Compliance, Pump Station Maintenance, and Engineering. Our department is on call to provide exceptional customer service 24 hours a day, 365 days a year.

Since its beginning, Marietta Water's goal has been to provide the safest and highest quality drinking water for all its customers. We maintain 250 miles of distribution piping using the latest technologies and equipment. Testing is performed from the source waters right to your home, checking purity and identifying potential problems. Plans are in place for future needs and unexpected emergencies. Through foresight and planning, efficiency in operations, and a focus on excellence in customer service, Marietta Water will continue to provide you with the best quality drinking water for the next 100 years.

Marietta Water was awarded 2001 Distribution System of the Year by the GW&PCA. Marietta won the award for systems in the category of 10,000–50,000 customers. This merit was based on facilities management and operation, resources (personnel, equipment, technology), safety programs, and emergency response programs.

Contamination from Cross-Connections

Homeowners use garden hoses connected to the Marietta Water supply for a variety of purposes, including irrigating lawns and flower beds, washing cars, filling swimming pools, bathing pets, and applying liquid fertilizers or pesticides. Hose bibbs or faucets that are connected to the Marietta Water supply should be equipped with hose bibb vacuum breakers to prevent water in the hose from moving back into the water supply. Backward movement of water is called backflow, and it can occur either by siphoning or back pressure. An HVB is a small valve assembly that protects an individual water outlet. HVBs are normally constructed of brass with hose threaded connectors. They are relatively inexpensive, costing approximately $4 or $5 at any hardware store. An HVB is simply installed by threading it onto the male hose threads of the faucet. A garden hose is then connected by threading it onto the male hose threads of the HVB. With little maintenance, HVBs should provide years of reliable service, preventing possible backflow of water and pollutants from garden hoses back into the water service. Check your home today for these important devices.